

33. An electro-optical device including an insulated gate field effect semiconductor device for driving a pixel of the electro-optical device comprising:

an electro-optical device including a plurality of pixels; and  
insulated gate field effect devices for respectively driving said pixels, said insulated gate field effect devices each including;

a semiconductor layer including a channel region;  
semiconductor source and drain regions provided in contact with said channel region at a source-channel boundary and a drain-channel boundary respectively;

a gate electrode provided adjacent to said channel region; and  
a gate insulating layer interposed between said gate electrode and said channel region;

wherein said semiconductor layer is doped with oxygen in at least one boundary region in the vicinity of at least one of said source-channel boundary and said drain-channel boundary at a concentration of at least  $1 \times 10^{19}$  atoms/cm<sup>3</sup>.--

REMARKS

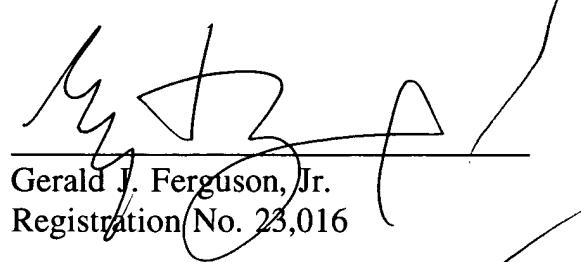
Claims 21-24 are the same as rejected claims 32 and 37-39 of the parent application. New claims 25 and 27 are similar to allowed claim 35 of the parent application but recite respectively limitations of a top-gate transistor and a bottom-gate transistor. New claims 29 and 30 are similar to allowed claim 36 of the parent application but recite also limitations of a top-gate transistor and a bottom-gate transistor, respectively. Furthermore, the "wherein" clause

of claims 29 and 30 is not exactly the same as that of parent claim 36.

New claims 31-33 are also similar to allowed claim 35 but separately recite nitrogen, oxygen and carbon.

Examination on the merits is requested.

Respectfully submitted,

  
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